

## TWO NEW AMERICAN ORCHIDS

BY

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### I. A NEW CORALLORRHIZA FROM MEXICO

The genus *Corallorrhiza* comprises a small group of saprophytic plants which attain their greatest development in the United States. Some of the species are widely distributed. For instance, *C. odontorrhiza* (Willd.) Nutt. (to which this new species is most closely allied) is found from southern Maine, through the eastern and south-central United States, south to Honduras in Central America.

#### ***Corallorrhiza Williamsii* Correll sp. nov.**

Herbae simplices, graciles, nudae, saprophyticae. Caulis erectus, basi bulboso-incrassatus, vaginis arcte adpressis obtectus. Inflorescentia racemosa, laxa, pauciflora. Bractae minutae. Flores parvi. Sepala lineari-oblonga, subobtusa vel acuta; sepala lateralia leviter obliqua. Petala lineari-elliptica, obtusa, leviter obliqua, crenulata. Labelium obovato-suborbiculare, apice truncatum vel rotundatum, ecallosum, trinervium, marginibus lateralibus subintegris vel erosis. Columna generis. Capsula ovoidea.

Slender leafless saprophytic herbs, 15–30 cm. tall. Stem erect, bulbous-thickened at the base, yellowish brown, concealed by closely appressed sheaths. Inflorescence a lax few-flowered raceme, up to 7.5 cm. long. Floral bracts minute, less than 1 mm. long. Flowers small, on filiform pedicels which are about 3.5 mm. long. Sepals and petals purplish. Sepals linear-oblong, subobtuse to acute, 4.5–6 mm. long, 0.8–1 mm. wide; lateral sepals slightly oblique. Petals with a slender claw, linear-elliptic, obtuse, slightly oblique, the margins often crenulate, 4–5.5 mm. long, 1–1.2 mm. wide. Lip white, marked with purple, with a slender claw, obovate-suborbicular, trun-



cate to broadly rounded at the apex, ecallose, 3-nerved, the lateral margins nearly entire to erose, 4.5–6 mm. long, 2.8–3.8 mm. wide. Column slender, compressed, 3–4 mm. long. Capsule ovoid, about 7 mm. long.

This species differs from *C.odontorhiza*, which it superficially resembles, in the larger, broadly obovate, ecallose lip and in the decidedly longer and narrower sepals and petals. So far as we know, this is the only species of *Corallorrhiza* whose flowers possess an ecallose lip.

This species is named in honor of Dr. L. O. Williams, an assiduous student of the orchids of Mexico.

MEXICO: Morelos, barrancas N.W. of Cuernavaca, under trees, about 1800 m. alt., March 19, 1937, *Otto Nagel & Juan G. 6655* (TYPE in Herb. Ames No. 52598); Morelos, mts. above, W. of Cuernavaca, in barranca under trees, 1800 m. alt., lip with purple stains, rest purple, March 4, 1937, *Otto Nagel & Juan G. 6608* (Herb. Ames); terrestrial near Tepeyte, mountain N. W. of Cuernavaca, 2200–2600 m. alt., May 15, 1938, *L. O. Williams 3833* (in part) (Herb. Ames).

## II. A NEW VARIETY OF *HABENARIA BLEPHARIGLOTTIS* FROM THE CUMBERLAND PLATEAU

In the course of a recent study of the Orchidaceae of the southeastern states, several specimens of *Habenaria blephariglottis* (Willd.) Hook. were observed which had flowers whose lip was entire or nearly so rather than long- or short-fringed (a characteristic of the species). At that time (Bot. Mus. Leaflet Harvard Univ. 8 (1940) 89) these plants were referred to *H. blephariglottis* var. *holopetala* (Lindl.) A. Gray. It now seems best to consider *H. blephariglottis* and var. *holopetala* as identical, and to describe as a new variety of *H. blephariglottis* the plants with flowers possessing an entire lip.

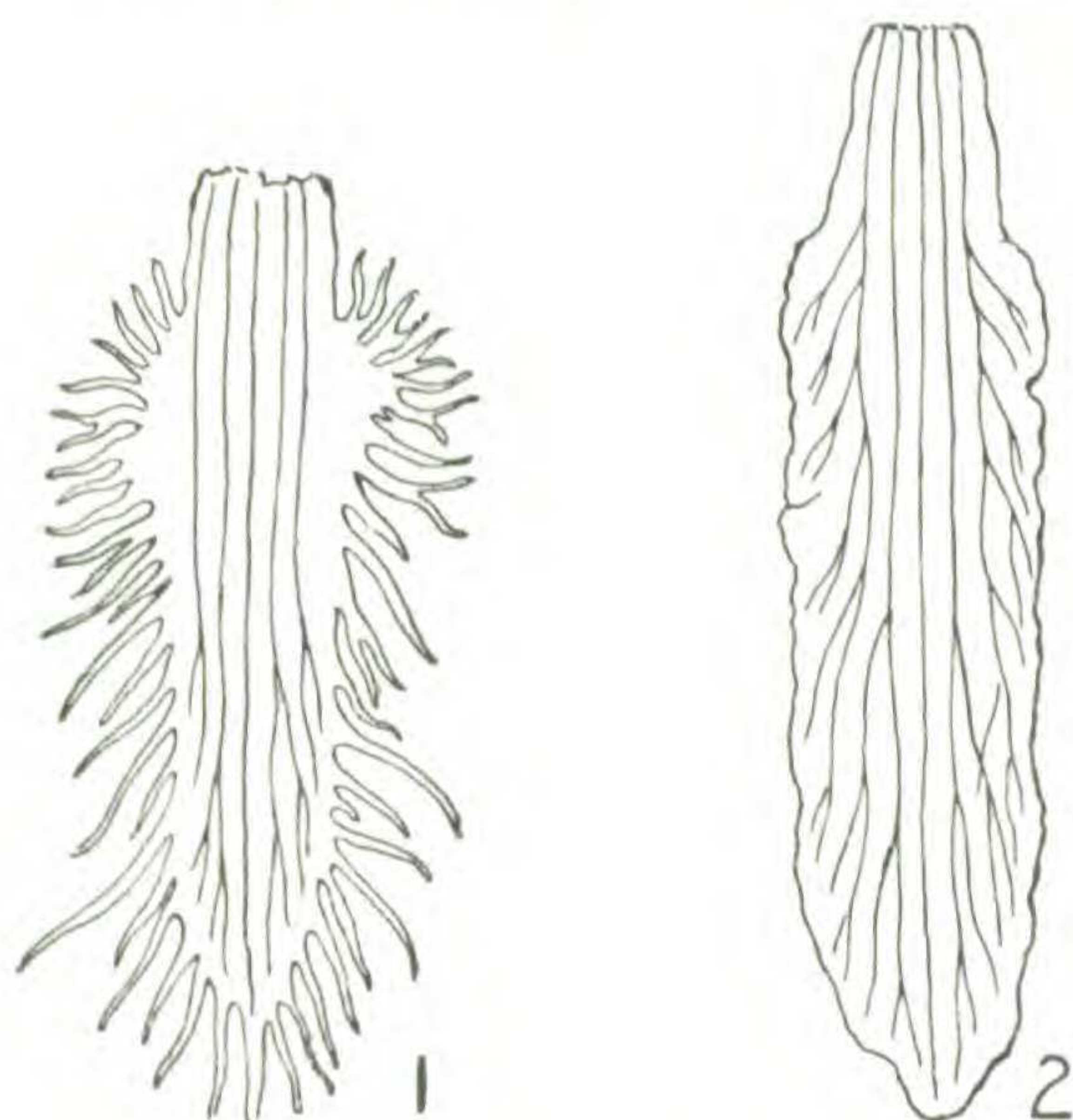
***Habenaria blephariglottis* (Willd.) Hook. var. *integrilabia* Correll var. nov.**

Herba a speciei typo labello plusminusve integro solum differt.



Plant differs from the type of the species only in the entire or nearly entire lip.

All of the material from Kentucky and Tennessee which has been examined has flowers with an entire lip. This variety would seem to be fairly common locally on the Cumberland Plateau, with two outlying stations in the Smoky Mountains in North Carolina and several scattered stations on the higher Piedmont Plateau, and on the Coastal Plain of Alabama and Mississippi.



1. *Habenaria blephariglottis*, lip, taken from a typical plant from North Carolina, three times natural size.

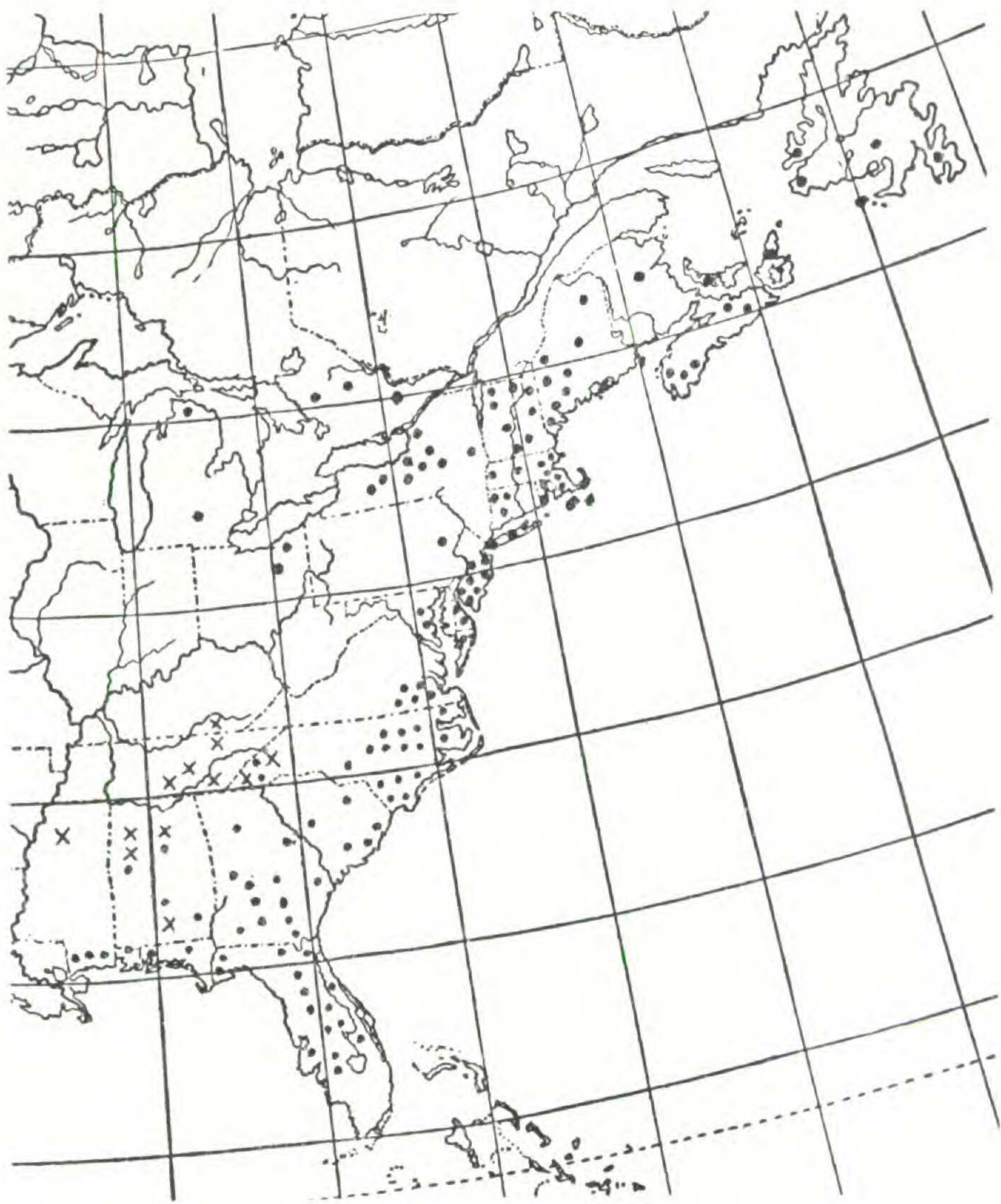
2. *Habenaria blephariglottis* var. *integrilabia*, lip, three times natural size.

Drawn February 1941 by G.W.DILLON

An interesting letter regarding a collection of this variety in Tennessee was received from Dr. H. K. Svenson dated September 15, 1938. It is, in part, as follows: "These [plants] were collected on the Cumberland Plateau near Beersheba Springs. I saw approximately two hundred specimens in grassy swamps, accompanied by *H. ciliaris* and *H. cristata*. This is undoubtedly the plant

mentioned in Ames, *Orchidaceae*, IV, 171, 1910—'Tennessee (?) Cumberland Mts., 1888, Mrs. Bennett (8) (a form with entire labellum).' It appears to be a large-flowered *H. blephariglottis*, with large petals and with a labellum which is consistently entire or practically so. It occurred in two swamps about five miles apart and is known from other places in the vicinity. Like the other





Map showing the distribution of *Habenaria blephariglottis*, represented by dots and *H. blephariglottis* var. *integrilabia*, represented by crosses.



species of *Habenaria* it is known locally as 'Monkey-face'."

In a recent letter Dr. McFarland wrote as follows concerning the type station of this variety: "There are literally 100's of these plants in this sphagnum bog. . . ."

The map shows the distribution of the typical form of *H. blephariglottis* and of var. *integrilabia*. Plants from the southeastern states, particularly along the Gulf Coast, commonly have open racemes of large, long-spurred flowers whose lip is long-fringed, whereas plants from Newfoundland and eastern Canada commonly have dense racemes of small, short-spurred flowers whose lip is short-fringed. Conditions intermediate between these extremes occur in the northeastern and eastern United States. The southern plants have been segregated by some authors as *H. conspicua* Nash or *H. blephariglottis* var. *conspicua* (Nash) Ames, based mainly on the length of the spur. This character, however, depends too much on habitat conditions to be of taxonomic value. It seems best to regard as *H. blephariglottis* all of the white-flowered plants whose flowers have a fringed lip, and to segregate as a geographical variety those plants whose flowers possess a lip which is entire or nearly so.

NORTH CAROLINA: Cherokee County, in a bog in the southwest corner of the county, August 2, 1935, *D. S. Correll 3621* (Herb. Duke Univ.); Henderson County, Hendersonville, 1892-1900, *Margaret C. Campbell* (Herb. Univ. North Carolina).

KENTUCKY: boggy sphagnum ravine three miles north of Whitley City, McCreary County, August 27, 1940, *F. T. McFarland & H. J. Rogers 97* (TYPE in Herb. Ames No. 59555; ISO-TYPES distributed by the University of Kentucky in their First Century of plants); McCreary County, bog along stream about 3 miles south of Pine Knot, soil medi-acid, September 11, 1927, *E. T. Wherry & F. W. Pennell* (Herb. Ames); McCreary County, sphagnum bog, 2.3 miles north of Whitley City, on U. S. Route 27, August 2, 1939, *H. J. Rogers 120* (Herb. Ames, Herb. Univ. Kentucky).

TENNESSEE: Fentress County, Mayland, August 16, 1934, *J. B. Porter 3092* (Herb. Univ. Tennessee); Franklin County, Sewanee, 1880,



*E. K. Smith* (Herb. Univ. Minnesota); Grundy County, Mont Eagle, August 16, 1930, *Mrs. A. G. Richards & Mrs. R. R. Maguire* (Herb. Cornell Univ.); Grundy County, near Beersheba Springs, grassy swamps, 1900 ft. alt., August 12, 1938, *H. K. Svenson 8580* (Herb. Ames, Herb. Duke Univ., Herb. Brooklyn Bot. Gard.); Hamilton County, W. Ridges, Chattanooga, August 1923, *M. S. Colby* (Herb. Univ. Chattanooga).

ALABAMA: Butler County, Greenville, swamps, August 11, 1900, *Biltmore Herb. 691d* (Herb. N.Y. Bot. Gard.); Culman County, Long Island, marshy ground on Sand Mt., August 1920, *V. Peterson* (Herb. Missouri Bot. Gard.); Tuscaloosa County, Tuscaloosa, June, *E. A. Smith 1489* (Herb. Mohr); Winston County, 1866, *T. M. Peters* (Herb. Brown Univ.).

MISSISSIPPI: Glendale [possibly Glenville, Panola County] 1863, *J. T. Stewart* (Herb. Field Museum).



## EXPLANATION OF THE ILLUSTRATIONS

PLATE I. *PONERA GLOMERATA* *Correll*. 1, terminal portion of plant, one half natural size. 2, defoliated section of stem showing inflorescences, one half natural size. 3, flower, from front, partly spread open, two and one half times natural size. 4, dorsal sepal, two and one half times natural size.

*PONERA STRIATA* *Lindl*. 5, defoliated section of stem showing inflorescences, one half natural size. 6, flower, side view, two and one half times natural size. 7, flower, from front, partly spread open, two and one half times natural size.

PLATE II. *PONERA LONGIPETALA* *Correll*. 1, section of plant, one half natural size. 2, flower, from front, partly spread open, one and one half times natural size. 3, flower, side view, one and one half times natural size.

*PONERA SUBQUADRILABIA* *Correll*. 4, defoliated section of stem showing inflorescences, one half natural size. 5, flower, spread out, twice natural size.

*PONERA JUNCIFOLIA* *Lindl*. 6, plant, one half natural size. 7, flower, subtended by bracts, twice natural size. 8, lip, spread out, five times natural size.

PLATE III. *CORALLORRHIZA WILLIAMSII* *Correll*. 1, plant, natural size. 2, flower, from front, spread open, five times natural size. 3, column and lip, with sepals and petals removed, side view, five times natural size.

*Plates drawn 1941 by G.W. DILLON*